

JAPAN

EDICT OF GOVERNMENT

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JIS B 9654 (1988) (English): Design rules for
safety and sanitation of marine product machinery

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*The citizens of a nation must
honor the laws of the land.*

Fukuzawa Yukichi

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JAPANESE INDUSTRIAL STANDARD

**Design Rules for Safety and
Sanitation of Marine
Product Machinery**

JIS B 9654—1988

Translated and Published

by

Japanese Standards Association

In the event of any doubt arising,
the original Standard in Japanese is to be final authority.

JAPANESE INDUSTRIAL STANDARD

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Design Rules for Safety and Sanitation
of Marine Product Machinery

B 9654-1988

1. Scope

This Japanese Industrial Standard specifies general matters concerning safety countermeasures and sanitation countermeasures for design, manufacture, setting and operation of marine product machinery and its attachments, hereinafter referred to as the "machinery", in addition to specifications of JIS B 9650.

Remark: The marine product machinery specified in this Standard means the fish meat taking machine, back screening machine, cutters (silent cutter, bowl cutter), forming machine (fish paste forming machine, KAMABOKO forming machine, fry KAMABOKO forming machine), heating devices (fish paste grilling machine, KAMABOKO steam boiling machine, fry KAMABOKO frying machine) and cooling machines (fish paste and fry KAMABOKO cooling machine, KAMABOKO cooling machine), out of many machines used for general manufacturing processes for cooking to fish meat kneaded products by dressing meat taking, mixing, agitating, kneading, forming, baking, frying, steam boiling, boiling, and cooling of fishes and shell-fishes.

2. Definitions

For the purposes of this Standard the following definitions apply in addition to JIS B 9650:

- (1) fish meat taking machine The machine to take fish meat by separating bones, skins, scales, etc. from the fish body removed of head part and internal organs. There are mainly the following machines:
 - (a) The machine to take with separating bones, skins, scales, etc. from fish meat by roll type.
 - (b) The machine to take with separating bones, skins, scales, etc. from fish meat by stamp type.
- (2) back screening machine The machine to remove by separating further impurities such as small bones, stripes, scales, etc. from the taken fish meat.
- (3) cutter The machine to cut thinly, mix, and agitate the raw materials such as fish meat, liquid, powders, etc., having agitator moving by power in inside. There are mainly the following machines:

Applicable Standard:

JIS B 9650-General Design Rules for Safety and Sanitation of Food
Processing Machinery

- (a) silent cutter The machine to cut thinly, mix and agitate fish meat, having agitating dish for preparing fish meat minced flesh.
- (b) bowl cutter The machine to cut thinly, mix, and agitate the fish meat, having agitating bowl for making fish meat mince flesh.
- (4) forming machine The machine having feed pump, extruder, molding device, winder, compositor, cutter, extender, etc. required for forming minced flesh of fish meat. There are mainly the following machines:
 - (a) The machine for forming by molding each definite amount of minced flesh of fish meat for fish paste to feed out and by winding to pipe.
 - (b) The machine for forming in multicolour by extruding each definite amount of minced flesh for KAMABOKO and by placing on a plate or filling in a tube.
 - (c) The machine for forming to spherical shape, round bar shape, square bar shape, flat-round shape, flat square shape, etc. by moulding or extruding each definite amount of minced flesh for frying.
- (5) heating device The machine having heating mechanism required for heat treatment of mince flesh of fish meat or its processed goods. There are mainly the following machines:
 - (a) The machine having mechanism for grilling fish paste forms.
 - (b) The machine having mechanism for steam boiling of KAMABOKO forms.
 - (c) The machine having mechanism for frying fried KAMABOKO forms and the oil holding device.
- (6) cooling device The machine and electric fan integrated with the house or cabinet having such mechanism required for cooling the products after heating. Mainly, there are following machines:
 - (a) The machine having mechanism required for cooling the fish paste products.
 - (b) The machine having mechanism required for cooling KAMABOKO products.
 - (c) The machine having mechanism required for cooling fried KAMABOKO products.

3. Safety and Sanitation Countermeasures for Individual Types

3.1 Fish Meat Taking Machine

3.1.1 Safety Countermeasures The safety countermeasures shall be as follows:

- (1) The transmission and driving mechanisms shall be of such structure that the hand fingers and other part of personal body are so protected as not to enter by safety cover or guard without fail.

- (2) The machine shall be provided with window opening for inner part checking so as to make the check, regulation, and repairing easy.

Further, the structure shall be such that attaching and detaching of safety cover and guard can be conducted safely and easily.

- (3) The structure shall be such that at the time of cleaning or washing, the light matters can be detached easily, and the heavy matters can be washed without detaching by using mechanism such as reversing and the like.
- (4) The feed oil shall be of such structure that provided with autogreaser or the like so that oil feeding can be conducted safely even during operation.
- (5) The portion of large inertia motion of driving device shall be of safety structure provided with a torque limiter or the like.
- (6) In the case of stamp type, the structure shall be such that the parts having the action of buffer safety valve for protecting the machine body due to continuous instantaneous forces are assembled.
- (7) The emergency stop switch shall set at a position where it is possible to reach quickly and safely from the working position.

Further, as required, those shall be set at plural places.

- (8) The net roll and knife of roll type as well as the disc and knife of stamp type to be used shall be applied with quench hardening treatment.
- (9) The machine shall be of such structure having no dangerous portion such as protrusion, sharp edge, etc.

3.1.2 Sanitation Countermeasures The sanitation countermeasures shall be as follows:

- (1) The structure shall be such that the poured oil does not mix in the foods.
- (2) For bolts, machine screws, washers, etc. to be used at the place to contact the foods, stainless steel shall be used and those having dent, not be used.
- (3) The structure shall be such that at the time of cleaning and checking, the required portions can be decomposed and assembled by means of simple tools and, washed easily.
- (4) The edge and corner of food contact part shall be rounder by not less than 6 mm to be smooth and, of such structure that it is capable of draining over the whole body and no water reserves.
- (5) For the intermediate roller of roll type, corrosion resistant aluminium or synthetic resin having quality equivalent or superior thereto shall be used.

3.2 Back Screening Machine

3.2.1 Safety Countermeasures The safety countermeasures shall be as follows:

- (1) The back screening machine into which the raw material is injected automatically shall be of such structure that in order to prevent the danger of worker the safety guard is so provided that his hand and finger do not enter the raw material injection device (raw material pressing-in screw or propeller) so as not to contact the raw-material pressing-in screw or propeller of rotary part.
- (2) The back screening machine into which raw material is injected by hand shall be of such structure that in order to prevent the danger of worker his hand and finger do not enter from the dangerous portion of injection opening so as not to contact the blade screw of rotary part.
- (3) In the case where in order to carry out effective feed of raw material, further larger injection opening is provided, the structure shall be such that it is able to prevent securely the reaching of finger and the like to the blade screw by providing the safety guard at the upper part of injection opening.
- (4) The safety guard of raw material injection opening shall be of such structure that even in the case where the feed tray is detached it remains.
- (5) The operation board to be attached at the outside of back screening machine shall be of drop preventive structure and as required, water preventive structure.
- (6) The structure shall be such that the position of back screening machine is not shifted and excessive vibrations are not generated.

3.2.2 Sanitation Countermeasures The sanitation countermeasures shall be as follows:

- (1) The structure shall be such that for cleaning and checking of food contact parts (blade screw, cylinder, and hopper), speed reducer, electric motor, lower part of transmission part attaching, etc. the cover and the like can be attached and detached by means of simple tools.
- (2) The corner part of food contact part shall be made smooth by rounding without fail so as to be such structure that it is able to exhaust to the whole body and water is not remained.
- (3) The transmission part including electric motor, bearing part, etc. shall be set at food no-contact part and applied with such treatment that the raw material does not contact directly.
- (4) The structure shall be such that the juice and meat grease to be accumulated at parts of blade screw and cup joint can be exhausted.

- (5) The structure shall be such that the raw material injection hopper and transmission part are integrated so as to prevent falling down of raw material and so that cleaning or washing can be conducted easily.

3.3 Silent Cutter

3.3.1 Safety Countermeasures The safety countermeasures shall be as follows:

- (1) The rotary shaft, blade, agitating device, etc. shall be of such structure that the check, regulation, repairing, washing and cleaning can be conducted easily in safe condition.
- (2) The structure shall be such that at the time of maintenance and repairing the blade, agitating vane, etc. can be attached and detached safely and easily.
- (3) The structure shall be such that the blade cover and safety guard are so provided that during actuation of machine the worker does not contact the rotating blade, agitating vanes, etc.
- (4) The structure shall be such that when the blade cover and safety guard are not closed completely, the machine does not actuate.
- (5) The emergency stop switch shall be set at a place where it is able to reach quickly and safely from working position, and as required, those, set at plural places.
- (6) The transmission part including electric motor shall be set at food non-contact part and, of such structure the cleaning can be conducted.
- (7) In the housing to reserve electric system such as control board, operation board, etc., the oil pressure appliance, water pressure appliance, air pressure appliance and other appliances, other than those relating to electricity shall not be reserved.
- (8) The housing to reserve electric system shall not be placed on the floor. In the case where it is required to be placed on the floor, the distance between the bottom part of housing and the floor shall be not less than 250 mm.
- (9) The control board and operation board shall be of drop preventive structure and, as required, of water preventive structure.
- (10) The set machine shall be of such structure that no excessive vibration is generated.
- (11) The electric motor shall be applied with earthing work, without fail.

3.3.2 Sanitation Countermeasures The sanitation countermeasures shall be as follows:

- (1) The blades, agitating vanes, etc. in agitating dish shall be of such structure that the decomposition and assembly are easy and sufficient washing can be carried out.
- (2) The agitating dish, blades, agitating vanes, etc. of food contact part shall be made of stainless steel, the blade cover and safety guard, of stainless steel or corrosion resistant aluminium applied with anodizing or ethylene tetrafluoride treatment, and for others, the synthetic resin complied with the Food Sanitation Law shall be used.
- (3) The bearing parts shall be of such structure that the leaked lubricant does not intrude in the agitating dish.
- (4) The corner parts of food contact part shall be rounded by not less than 6 mm to be structure of smooth surface.
- (5) In the case of setting at a place where washings and the like are scattered, the structure shall be such that the intrusion of water drops from vent hole can be prevented.
- (6) For machine, a clearance of not less than 150 mm from the floor surface shall be provided or a sufficient space so that cleaning can be carried out easily, provided.

3.4 Bowl Cutter

3.4.1 Safety Countermeasures

- (1) The structure shall be such that if the knife and baffle are not stopped completely, the bowl cover does not open.
- (2) In the case of (1), the structure shall be such that the power once stopped, even the bowl cover is closed, if again the operation is not carried out, does not actuate.
- (3) The attaching position of electric operation board shall be of such structure that it is set at a place where the worker can see sufficiently.
- (4) The electric control board shall be of drop preventive structure.
- (5) As to the setting, the structure shall be such that the position is not shifted and excessive vibrations are not generated.

3.4.2 Sanitation Countermeasures The sanitation countermeasures shall be as follows:

- (1) All surfaces shall not absorb food raw-materials.
- (2) For the food contact parts, stainless steel or synthetic resin shall be used (the synthetic resin shall be that complied with the Food Sanitation Law).
- (3) The structure shall be such that oils do not enter in the bowl by oozing out from bearing parts of knife shaft and baffle shaft.

- (4) All packing seals shall be of such structure that oil leakage is prevented.
- (5) Such sufficient space that all surfaces can be cleaned shall be provided.
- (6) The machine shall be provided with a clearance not less than 150 mm from the floor surface, or such sufficient space that cleaning can be carried out easily.

3.5 Fish Paste Forming Machine

3.5.1 Safety Countermeasures The safety countermeasures shall be as follows:

- (1) Such safety guard that the contact of hand with the raw-material feed roller is prevented by so making that hand of worker does not enter the hopper, shall be provided.
- (2) The forming machine is usually interlocked with grilling machine, spit drawing machine, etc. and therefore shall be of such structure that for prevention of danger the emergency stop lever or emergency switch is provided.
- (3) The structure shall be such that when the machine is stopped and during adjusting the machine does not actuate.
- (4) The driving chain, spit feed chain, transmission gear device, etc. shall be provided with so safety cover that the worker's hand and fingers are not clipped, nor his arm is touched.

3.5.2 Sanitation Countermeasures The sanitation countermeasures shall be as follows:

- (1) The materials of food contact parts to be used shall have corrosion resistance without toxicity, not absorb food raw materials, and not contaminate the foods.
- (2) The hopper, raw-material feed roller, mould frame drum, press mould, etc. shall be of such structure that these are able to be decomposed and detached easily for washing.
- (3) The structure shall be such that the structural members are free from holes, dents, etc. and cleaning can be carried out completely and easily.
- (4) The electric motor, speed reducer, etc. shall be set at food non-contact part and applied with such countermeasures that foods do not contact directly (sufficient distance, cleanable device, etc.).
- (5) The electric operation position shall be at a place where cleaning can be carried out easily.

3.6 KAMABOKO Forming Machine

3.6.1 Safety Countermeasures The safety countermeasures shall be as follows:

- (1) In the case of hopper for injection of raw material by hand, the structure shall be such that in order to prevent the danger of worker, the safety guard is provided at the upper part of hopper and it is able to prevent so securely that his finger reaches the scrape down metal fittings and propeller.
- (2) The structure shall be such that at the time of check, regulation, and repairing, the gear pump, mouthpiece body, hopper, screw, etc. are able to be decomposed and assembled easily in safety state.
- (3) In blank plate feed device, the plate feed roll, blank plate pushing-out slide part, etc. shall be of such structure that safety guard is applied.

3.6.2 Sanitation Countermeasures The sanitation countermeasures shall be as follows:

- (1) The structure shall be such that for cleaning and checking of food contact parts (pump, mouthpiece body, hopper, screw, etc.) the work can be carried out easily by means of simple tools.
- (2) Corner parts of food contact part shall be rounded to be smooth without fail and, of such structure that the cleaning and washing can be carried out easily.
- (3) The transmission parts including the electric motor, bearing parts, etc. shall be set at food non-contact part and, of such structure that foods do not contact directly and, so made that cleaning can be carried out sufficiently.

3.7 Fried KAMABOKO Forming Machine

3.7.1 Safety Countermeasures The safety countermeasures shall be as follows:

- (1) In the case of hopper into which the raw materials are injected by hand, the safety guard shall be so provided at the upper part of hopper as to be such structure reaching of hand and fingers to raw material feed rollers is protected.
- (2) The structure shall be such that the decomposition, assembly, operation and maintenance of the machine can be conducted safely and easily.
- (3) The transmission parts and movable parts shall be provided with safety cover and the like to be such structure that the dangerous parts are not exposed.
- (4) The operation board and appliances to be used in electric system shall be of drop preventive structure and, as required, of water preventive structure.

3.7.2 Sanitation Countermeasures The sanitation countermeasures shall be as follows:

- (1) At the food contact parts, harmful materials shall not be used.

- (2) The number of parts shall be retained at the minimum limit so as to be such structure that decomposition, assembly, and cleaning are easy.
- (3) By taking into consideration the water cut at the time of washing and prevention of water-drop intrusion into power part and the food contact part shall be used of corrosion resistant material and, of such surface structure that convexes and dents are little and the surfaces are smooth.

3.8 Fish Paste Grilling Machine

3.8.1 Safety Countermeasures The safety countermeasures shall be as follows:

- (1) The high temperature part having such fear that the worker or other persons may contact shall be provided with protective device of cover or shield.
- (2) For the high temperature part including grilling part, the materials having such fear that the change in material quality or change in shape due to heat is generated shall not be used.
- (3) The structure shall be such that at the time of maintenance and repairing, attaching and detaching of required part can be carried out safely and easily.
- (4) The electric motor, driving parts, bearing parts, etc. shall be set at places other than high temperature parts, and the parts where the worker or other persons can approach usually shall be protected securely by means of guard.
- (5) The appliances using gas shall be guaranteed on its safe combustion (for example, correct ignition of main burner, complete ignition of individual flames of main burner, holding of safety of flame, etc.).
- (6) The content of carbon monoxide in exhaust gas shall be so made that it does not exceed the permissible limit (for example, correct selecting of burner), and the sufficient air, be fed so that instead of new, fresh air the exhaust gas is not absorbed in the burner even partially.
- (7) The back fire at the gas introduction part shall be prevented.
- (8) The electric heating type shall have abnormally high-temperature detection and electric leakage protection functions.
- (9) The safety device which against accidental state such as earthquake, immediately shuts off gas feed and power source shall be provided.
- (10) Such safety guard that the switch is not actuated carelessly shall be provided.

3.8.2 Sanitation Countermeasures The sanitation countermeasures shall be as follows:

- (1) The combustion part, combustion operating part or parts relating to those shall be of such structure that the cleaning can be carried out easily.
- (2) The electric motor, speed reducer, etc. shall be set at food non-contact part and, applied with such countermeasures that foods do not contact directly (sufficient distance, cleanable device, etc.).
- (3) The position of electrical operation shall be a place where the cleaning can be carried out easily.
- (4) The food clip frame of food contact part (spit drawing device) shall be corrosion preventive and rust preventive and, able to be washed easily.
- (5) The machine shall be provided with a clearance of not less than 150 mm from the floor surface or a sufficient space so that cleaning can be carried out easily.

3.9 KAMABOKO Steam Boiling Machine

3.9.1 Safety Countermeasures The safety countermeasures shall be as follows:

- (1) The high temperature part having such fear that the worker or other persons contact shall be provided with a protective device of cover or shield.
- (2) For the high temperature part of steam-boiling machine, such material having a fear that the change in quality or change in shape due to heat may be generated shall not be used.
- (3) Out of electric motor, driving parts and bearing parts, such parts where the worker or other persons can approach usually shall be protected by a sure and sufficient guard.
- (4) The structure shall be such that at the time of maintenance and repairing the detaching and attaching of required parts are able to be carried out safely and easily.
- (5) For glass of check window, heat resistant reinforced glass shall be used.

3.9.2 Sanitation Countermeasures The sanitation countermeasures shall be as follows:

- (1) The transport function parts at food contact parts (bar chain, net conveyor, conveyor belt, etc.) shall be of such structure that washing can be carried out easily.
- (2) The structure shall be such that the inside of steam boiling machine can be drained easily.

- (3) The transport function parts of food contact part and parts relating thereto shall be of corrosion preventive and rust preventive structure.
- (4) The electric motor, speed reducer, etc. shall be set at food non-contact part and applied with such countermeasures that foods do not contact directly (sufficient distance and cleanable device).
- (5) The position of electrical operation shall be at the place where cleaning can be carried out easily.
- (6) The structure shall be such that foods do not fall down into the steam boiling machine and the edge or corner in the steam boiling machine shall be rounded by not less than 6 mm so that food refuses and stains do not adhere and sufficient washing can be carried out.

3.10 Fry KAMABOKO Oil-Frying Machine

3.10.1 Safety Countermeasures The safety countermeasures shall be as follows:

- (1) The high temperature parts having such fear that the worker or other persons may contact shall be provided with a protective device of cover or shield.
- (2) For high temperature parts, such structure and materials that the change in shape and change in material quality due to heat are not generated shall be used.
- (3) The structure shall be such that at the time of maintenance and repairing, the decomposition and assembling of required parts can be carried out safely and easily.
- (4) The operation board and electric appliances shall be of drop preventive structure and, as require, of water preventive structure.
- (5) The heat sources of gas burner, heater, etc. shall be applied with such protective countermeasures that oil is not added directly or indirectly.
- (6) As to appliances using gas, the safe combustion shall be guaranteed (for example, correct ignition of main burner, complete ignition of individual flame of main burner, holding of stability of flame, etc.).
- (7) The back fire of gas introduction part shall be prevented.
- (8) The exhausting of exhaust gas shall be able to be carried out sufficiently.
- (9) Against the accidental state such as earthquake and the like, such safety device that immediately shuts off the gas feed and power source shall be provided.
- (10) The abnormal-heat preventive device shall be set by adding a high temperature thermostat.

- (11) The check window shall be of heat resistant structure.
- (12) Depending upon the condition of setting place (inclination or convex and dents of floor surface), such device that the stabilized state near horizon is held always and oil following high temperature is not spilled out (adjust bolts for setting) shall be provided.
- (13) The parts having possibility that the oil heated at a high temperature may be scattered shall be provided with the protective device.
- (14) The power part and driving part having such possibility that the worker may contact shall be provided with the protective device.

3.10.2 Sanitation Countermeasures The sanitation countermeasures shall be as follows:

- (1) The body including the food contact parts (oil tank, operation part, and parts relating thereto) shall be of such structure that cleaning or washing can be carried out easily.
- (2) The transmission parts including electric motor, bearing parts, etc. shall be set at food non-contact part and applied with such countermeasures that foods do not contact directly (sufficient distance, cleanable device, etc.).
- (3) The position of electrical operation shall be at the place where cleaning can be carried out easily.
- (4) The combustion part and combustion operating part and parts relating thereto shall be of such structure that cleaning can be carried out easily.
- (5) The oil drain of oil tank shall be of such structure that it is able to be carried out completely.
- (6) For the contact parts of foods and oil, harmful material shall not be used.

3.11 Fish Paste - Fry KAMABOKO Cooling Machine

3.11.1 Safety Countermeasures The safety countermeasures shall be as follows:

- (1) The structure shall be such that at the time of maintenance and repairing, the detaching and attaching of required parts can be carried out safely and easily.
- (2) The structure shall be such that hand and fingers do not contact with the fan.
- (3) In the case of using a refrigerator, the piping having no leakage of refrigerant shall be conducted and sufficient protection such as cover and the like, applied.

- (4) The parts of electrical operation having possibility of addition of water shall be applied with water preventive treatment.
- (5) For steam washing device, the high temperature parts having such fear that the worker or other persons may contact shall be provided with protective device such as cover or shield.
- (6) For the check window, the breakage resistant and moisture resistant material shall be used and the inner parts can be viewed sufficiently.

3.11.2 Sanitation Countermeasures The sanitation countermeasures shall be as follows:

- (1) The transport function parts and the parts relating thereto at the food contact parts shall be of such structure that these are corrosion preventive and rust preventive, and further the washing can be carried out easily by steam or hot water.
- (2) The filter at air intake opening shall be of such structure that its exchange can be carried out easily.
- (3) The transmission parts shall be set at food non-contact part and, applied with such countermeasures that foods do not contact directly (sufficient distance and cleanable device, etc.).
- (4) The structure shall be such that foods do not fall down in the house and the edges or corners in the house, be so rounded by not less than 6 mm that food refuses and oil grouts do not adhere and washing can be carried out sufficiently.
- (5) Several check window shall be provided so that the washing of inside of house can be carried out easily and draining can be conducted easily.
- (6) The structure shall be such that noxious insects, small animals, etc. can not intrude into the house.
- (7) The position of electrical operation shall be at a place where the cleaning can be carried out easily.
- (8) In the case where vent duct is provided, it shall be of such structure that the cleaning can be carried out with detaching easily.
- (9) The machine shall be provided with a clearance of not less than 150 mm from the floor surface or such sufficient space so that the cleaning can be carried out easily.

3.12 KAMABOKO Cooling Machine

3.12.1 Safety Countermeasures The safety countermeasures shall be as follows:

- (1) The structure shall be such that at the time of maintenance and repairing the detaching and attaching of required parts can be carried out safely and easily.

- (2) The cooling apparatus by refrigerator shall be applied with protective device such as sufficient cover.
- (3) The switch and operating part having possibility of being added with water shall be applied with water preventive treatment.
- (4) The transmission parts including electric motor, bearing parts, etc. shall be applied with such countermeasures that foods do not contact directly (sufficient distance, cleanable device, etc.).

3.12.2 Sanitation Countermeasures The sanitation countermeasures shall be as follows:

- (1) The transport function parts (bar chain, net conveyor, conveyor belt, etc.) at food contact part shall be of such structure that washing can be carried out easily.
- (2) The cooling machine inside shall be of such structure that drain can be conducted easily.
- (3) The transport function parts in food contact part and parts relating thereto shall be corrosion preventive, and rust preventive, and washing can be carried out easily.
- (4) The electric motor, speed reducer, etc. shall be set at food non-contact part and, applied with such countermeasures that foods do not contact directly (sufficient distance and cleanable device, etc.).
- (5) The ceiling part and side wall part in cooling machine shall be of such structure that condensation is not generated and, the edges and corners shall be rounded by not less than 6 mm so that food refuses or stains do not adhere and sufficient cleaning can be conducted.
- (6) The air-intake to inside of cooling machine shall be attached with a filter, and for its exchange and cleaning items necessary for securing sanitation, be marked.
- (7) In order to make cleaning and washing of inside of cooling machine easy, check windows shall be provided at required places.
- (8) The structure shall be such that noxious insects, and small animals can not intrude into inside of cooling machine.
- (9) The heat exchanger and parts relating thereto shall be such structure that cleaning can be carried easily.
- (10) The position of electric operation shall be at a place where cleaning can be carried out easily.

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